

### **REMARKS**

Applicants wish to thank Examiner McDowell for indicating allowability of Claims 4, 8, 12, 21, 22, 25, 27-29, 34, 41-48 and 54-57 if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **amended Claims 1 and 13** relate to **coated moldings** which are coated with a thermoplastic resin that is **capable of repeatedly molding after mixing with a thermoplastic resin used as a main constituent of the molding**. In addition, both resins have an **affinity** for each other at least at an interface or in a boundary region therebetween.

**Amended Claim 16** relates to **a method for manufacturing of a coated molding** in which the coating paint comprises as a main constituent a thermoplastic resin **capable of repeatedly molding after mixing with a thermoplastic resin used as a main constituent of the molded article**.

**Amended Claim 35** relates to **a paint** for resin moldings comprising a thermoplastic resin which has the same nature as or a nature different from a thermoplastic resin of a coated resin molding and is **capable of repeatedly molding after mixing with the thermoplastic resin of the coated resin molding**.

In contrast, JP 54-047771 fails to disclose or suggest a thermoplastic resin coating or paint which is capable of repeatedly molding after mixing with the thermoplastic resin of the coated resin molding.

JP 54-047771 discloses repair technology for a non-coated thermoplastic resin molding in which the chalky part on the surface of a non-coated thermoplastic resin molding weathered by wind, water and sun is coated with a synthetic resin liquid having an affinity for

the **chalky surface** of the thermoplastic resin molding. However, in the present invention, the term “affinity” is defined at page 14, 3<sup>rd</sup> full paragraph:

“The term affinity means a property wherein a resin for the coating film and a resin for the molding are readily miscible with each other. In the practice of the invention, it is sufficient that the coating film is repeatedly moldable after mixing with a thermoplastic resin used as a main component of the moldings.”

However, there is no disclosure or suggestion that the resin of JP 54-047771 is capable of repeatedly molding after mixing with the thermoplastic resin of the coated resin molding or that it has an affinity to the resin of the molding as defined above. However, this is an important feature of the claimed moldings. Since the coated film according to the present invention comprises a thermoplastic resin **capable of repeatedly molding** after mixing with the thermoplastic resin of the molding, a remolded thermoplastic resin constituting the coating film has affinity at interfaces therebetween or in the boundary region for the remolded thermoplastic resin of the molding as shown in Figures 6, 7, 17-19, 22, 23, 27-31, 33-35, 37, 38, 42, and 44-51.

Therefore, the rejection of Claims 1-3, 5-7, 13, 16, and 35-40 are rejected under 35 U.S.C. § 102(b) as being anticipated by JP 54-047771 and the rejection of Claims 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 54-047771 are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

The rejection of Claims 17-20, 23, 24, 26, 32, 33, 49-53, and 58 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lieberman (U.S. 5,569,713) in view of JP 54-047771 is respectfully traversed.

**Amended Claims 17, 49, 52, 53 and 58** relate to a method for recycling of a coated molding, an apparatus for recycling and a testing method in which the coated moldings are crushed and remolded and in which the coating comprises a thermoplastic resin **capable of**

**repeatedly molding after mixing with a thermoplastic resin used as a main constituent of the molded article.** In addition, the moldings are crushed and remolded.

In contrast, Lieberman requires that the volatile paint decomposition products from painted materials are removed by decomposing (Lieberman, col. 4, lines 30-36). Lieberman fails to disclose or suggest the method, apparatus and test method as claimed in which coated moldings are used which have a coating comprising a thermoplastic resin capable of repeatedly molding after mixing with a thermoplastic resin used as a main constituent of the molded article.

Lieberman discloses a blend composition containing recycled polycarbonate and recycled polymethylmethacrylate and minor amounts of a compatibilizing agent.

The Examiner alleges that Lieberman discloses a coated material such as the bumper formed with the foamed polypropylene core and the polyurethane shell (column 5, line 50-54). However, the bumper in Lieberman includes **glass fiber** as the bumper support and includes **polyurethane not having any compatibility (miscibility) with thermoplastic resin such as ABS resin or HIPS resin as shown on TEM photograph of Figs. 8 and 9 in the present application.**

Therefore, the rejection of Claims 17-20, 23, 24, 26, 32, 33, 49-53, and 58 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lieberman (US Patent 5,569,713) in view of JP 54-047771 is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The objection to Claim 24 is obviated by the amendment of this Claim.

With respect to the elected species, Applicants respectfully submit that, should the elected species be found allowable, the Office should expand its search to the non-elected species and should search Claims 9-11, 30 and 31.

Applicants respectfully request that the Examiner acknowledge that the references cited in the following Information Disclosure Statements have been considered:

**IDS filed July 10, 2000,**

**IDS filed November 30, 2000,**

**sheet two (2) of IDS filed July 30, 2002 and**

**IDS filed October 16, 2003.**

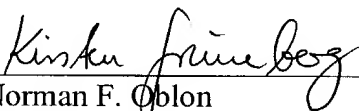
For the Examiner's convenience, copies of the Forms PTO 1449 as filed are attached herewith.

With regard to the IDS filed October 16, 2003, Applicants note that reference JP 2039917 was erroneously listed on Form 1449. This reference was previously cited in the IDS filed November 30, 2000.

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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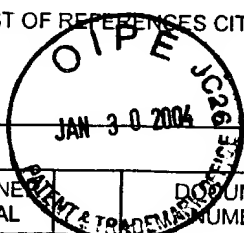
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Form PTO 1449  
(Modified)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.  
9829-001-0X-PCTSERIAL NO.  
09/147,129

## LIST OF REFERENCES CITED BY APPLICANT

APPLICANT  
Yasuhiro SUZUKI, et al.FILING DATE  
October 14, 1998GROUP  
1732RECEIVED  
FEB 09 2004  
TC 1700

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA					
	AB					
	AC					
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## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AO	JP2039917	02/08/90	JAPAN w. 1 p. English Abstract		x
	AP	JP6049250	09/29/93	JAPAN w. 1 p. English Abstract		xx
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	July 22, 2003 Japanese Office Action (3pp.)
	AX	
	AY	
	AZ	

☐ Additional References sheet(s) attached

Examiner

Date Considered

\*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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ATTY DOCKET NO.

9829-0001-0XPCT

SERIAL NO.

09/147,129

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Yasuhiro SUZUKI, et al.

FILING DATE

October 14, 1998

GROUP

1982

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	5,424,362	06/13/95 Y-C. HWANG, et al.			
	AB					
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## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

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## LIST OF REFERENCES CITED BY APPLICANT

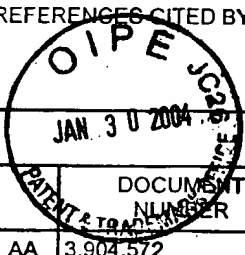
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Yasuhiro SUZUKI, et al.

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA 3,904,572	09/09/75	HUANG, et al.			
	AB 4,581,259	04/08/86	RAMBAUD			
	AC					
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## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO
	AO 0 475 377 A2	03/18/92	EUROPE (w/English Abstract)	X
	AP 2 387 272	11/10/78	FRANCE	X
	AQ 58-191724	11/09/83	JAPAN (w/English Abstract)	X
	AR 2-39917	02/08/90	JAPAN (w/English Abstract)	X
	AS 5-228936	09/07/93	JAPAN (w/English Abstract)	X
	AT 7-3218	01/06/95	JAPAN (w/English Abstract)	X
	AU 8-34088	02/06/96	JAPAN (English Abstract only)	
	AV 8-141491	06/04/96	JAPAN (w/English Abstract)	X

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	Yasuo UMESAWA, "Coating the plastic moldings", September 20, showa 47 (1972), NIKKAN KOUGYOU SHINBUNSHA, pp. 39-40 (column of vanish consisting of acrylic resin), p 42 (table 3.2), pp. 60-68.
	AX	
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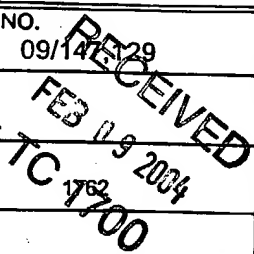
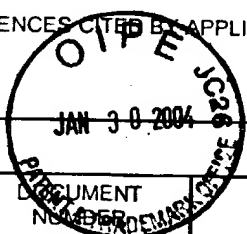
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	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	AO	JP 8-034088 A	February 6, 1996	JAPAN	X
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	AS				
	AT				
	AU				
	AV				

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	DATABASE WPI Section Ch, Week 199632 Derwent Publications Ltd., London, GB; Class A14, AN 1996-317078 XP002138976 & JP 08 141491 A (NAGOYA YUKA KK), 4 June 1996 (1996-06-04), paragraph '0011I, abstract
	AX	
	AY	
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